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Implications of the GATT Agreement for Iowa

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Abstract

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Disciplines

Agricultural and Resource Economics | Agricultural Economics | Economic Policy | International Economics | International Trade Law

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This is the fifth in a series of *CARD Briefing Papers* that analyzes a variety of issues of interest to agriculture. These analyses are based on the latest CARD and FAPRI baselines, and include topics such as the 1993 flood damage, agricultural policies and projections, FAPRI baseline summaries, CRP analysis for Iowa, and a wide range of international policy issues with implications for agriculture.

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Implications of the GATT Agreement for Iowa

Background

What is the General Agreement on Tariffs and Trade (GATT)? The GATT may be best described as an ongoing process through which trade distortions among countries are defined and targeted for reduction. There have been seven previous GATT agreements over the years. The most recent GATT agreement represents the eighth round of trade negotiations and is often called the *Uruguay Round* in reference to Punta del Este, Uruguay, where the agenda was set in 1986. The Uruguay Round of trade negotiations was the first to focus directly on trade distortions in agriculture. Agricultural trade distortions were chosen primarily because of increasing budgetary constraints for agricultural programs around the world. An agreement from the Uruguay Round was finally reached in December 1993, after seven years of negotiations that involved 117 nations. Even though an agreement was reached, the U.S. Congress still has to approve the agreement for it to become U.S. law. With the agreement slated to take effect on July 1, 1995, the lawmakers will have to move rather quickly to pass implementing legislation if the GATT agreement is to be approved in its present form. It does not appear that GATT implementing legislation will be passed this fall. If GATT is not approved by Congress in the spring of 1995, many of the agreements will have to be renegotiated.

While the Uruguay Round of GATT negotiations did focus on areas other than agriculture, agriculture was very prominent. The four areas of negotiation (called disciplines) were market access, export subsidy reduction, internal support, and sanitary and phytosanitary measures. *Market access* was defined as the quantity of imports from a particular country that are allowed to enter that country with little or no tariff, or nontariff barriers. Most countries currently have tariff or nontariff barriers of some kind on some or all of their agricultural imports. The goal of negotiating market access was to increase trade by opening markets that were previously inaccessible. To determine market access levels, a base period of 1986 to 1988 was selected, from which changes in market access could be negotiated. Negotiations set starting and ending market access rates. The starting rate of market access, beginning in 1995, was set at 3 percent of a country's domestic consumption over the 1986 to 1988 base period. This rate would increase to 5 percent of participating countries' domestic consumption by 2000 and then level off. For example, the United States must allow 5 percent of its domestic wheat consumption to enter as imports. This does not mean that 5 percent of domestic wheat consumption must enter, but if world prices are such that foreign countries would like to export wheat to the United States without facing tariffs, they may do so, but only up to 5 percent of U.S. consumption.

The next discipline, *export subsidy reduction*, requires countries to reduce both the amount of money spent on subsidies and the quantity of the commodity subsidized. Budget pressures for many countries, especially the European Union (EU) and the United States, are really what made this a key topic of negotiation. Similar to market access, a base period was negotiated from which reductions would be made. In the case of export subsidies, the greater of the 1986 to 1990 average subsidized exports and expenditures or the 1991-1992 average subsidized exports and expenditures was chosen as the base period. Negotiations resulted in two levels of required reductions, one for subsidy expenditures and one for subsidized quantities. Total subsidy expenditures are to be reduced by 36 percent from the base level by 2000. The quantity of subsidized exports is to be reduced by 21 percent by 2000. For the United States, this means that spending on the Export Enhancement Program (EEP) and the Dairy Export Incentive Program (DEIP) will have to be reduced. However, concerns over the federal budget deficit may reduce expenditures on EEP and DEIP anyway.

The next discipline addressed was *internal support*. Most countries support their agricultural sectors in some manner. Negotiations on this discipline centered on discouraging the practice of increasing internal supports to offset a reduction in trade barriers. From the negotiated base period of 1986 to 1988, a 20 percent reduction in internal supports by 2000 was agreed upon. The United States is already in compliance with this discipline given the reduction in target prices and in payment acreage from flex. Many other countries are also in compliance with this discipline, but the ruling is important because it limits the ability of countries to simply expand their internal support to offset the required reductions in export subsidies and increased market access.

The last discipline, *sanitary and phytosanitary measures*, was designed to synchronize food safety and health regulations across countries by setting uniform standards and establishing scientific monitoring committees that can make binding assessments. In the past, countries had used food safety and health regulations to restrict imports that may or may not have posed heath problems. This discipline seeks to insure that scientific fact is used to set standards.

In addition to the standard agreements on the four disciplines, many side agreements were also negotiated. The specifics of the GATT agreement and side agreements listed by country are found in the CARD GATT Research Paper 94-GATT 22, Uruguay Round Agreement on Agriculture: Summary of Commitments from Selected Country Schedules.

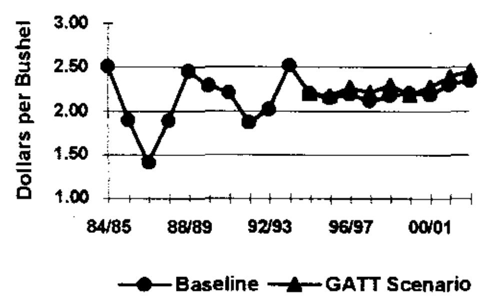
Impacts of GATT on Iowa Agriculture

The Food and Agricultural Policy Research Institute (FAPRI) analysis indicates that nearly all U.S. agricultural commodities benefit under GATT, although some commodities experience larger impacts than others. CARD extended the FAPRI analysis to commodities important to Iowa, such as corn, soybeans, and pork and found that all are significant winners under the Uruguay Round Agreement.

Beginning with corn, Iowa producers would realize increases in demand from two sources. The first source is increased exports. Because the European Union (EU) has committed to maintaining corn imports of 98 million bushels and the United States has a comparative advantage in corn production, corn exports from the United States are expected to grow. In addition, under GATT increased incomes around the world are expected to increase livestock production, further raising the demand for U.S. corn. In total, with full implementation of GATT, U.S. corn exports are expected to increase an average of 121 million bushels over the 2000 to 2002 period compared with baseline levels. The second source is greater domestic demand for corn through increased livestock production. With higher incomes around the world, more livestock exports are expected, particularly for pork. In total, U.S. domestic consumption is expected to increase by an average of 49 million bushels compared with baseline levels over the 2000 to 2002 period.

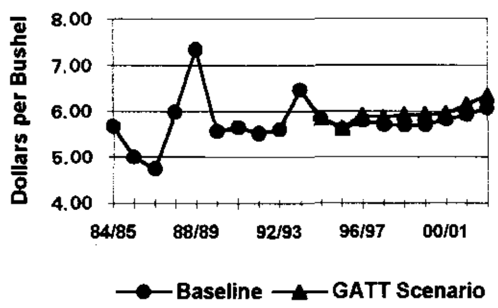
With the stronger demand for corn, prices are expected to increase. However, as prices increase, the Secretary of Agriculture is expected to reduce the Acreage Reduction Program (ARP) rate from the 7.5 percent figure projected in the baseline. Beginning in 1999, higher corn prices from GATT are expected to motivate the Secretary to reduce the ARP rate by 2.5 percent. Reducing the ARP increases production in 1999 and drops prices back down to baseline levels. However, the momentum in exports and domestic demand increases prices above the baseline level after 1999. In Iowa, stronger prices and a reduction in the ARP rate translate into a significant increase in corn acres planted. When GATT is fully implemented, corn acreage planted in Iowa is expected to average 295,000 acres (2.5 percent) higher than baseline levels with corn prices averaging $0.09 per bushel higher over the same period (see Figure 1).

Figure 1. Iowa Corn Price



Iowa soybeans are also expected to benefit from GATT, but not as much as corn. Relatively few trade barriers exist for soybeans, so soybean exports are not expected to increase significantly under GATT. However, despite a reduction in EEP subsidies for U.S. soybean oil, increases in income around the world from GATT are expected to offset the reduction in subsidized exports and U.S. soybean oil exports are expected to increase. Soybean prices in Iowa are expected to average 20 cents per bushel higher over the 2000 to 2002 period when GATT is fully

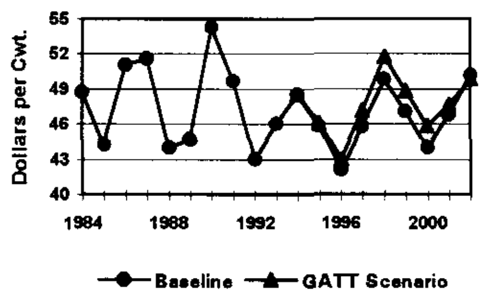
Figure 2. Iowa Soybean Price



implemented (see Figure 2). With competition from corn, soybean planted acres are expected to remain at baseline levels.

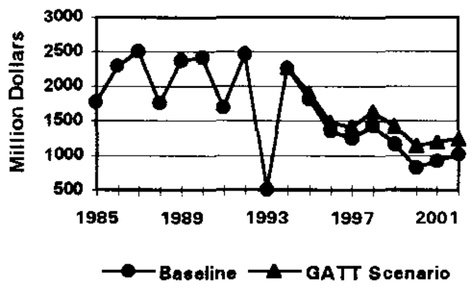
The Iowa pork sector benefits most from the GATT agreement. U.S. producers are expected to fill the gap created by the EU export reductions and increased market access, particularly to non-EU Western Europe, Japan, and Hong Kong. The U.S.

Figure 3. Iowa Hog Price



net pork trade position improves by nearly 1 billion pounds, 6 percent of production by 2002, supporting breeding herd increases of almost 7 percent (see Figure 3). Barrow and gilt prices average 2.7 percent higher than baseline levels over the 1995 to 1999 phasein period and 1.6 percent higher than baseline levels over the 2000 to 2002 period. Corn and hog cash receipts account for most of the increase in Iowa cash receipts. By 2002, corn receipts are $184.1 million higher than the baseline and hog cash receipts are $110.8 million higher. Soybean and cattle cash receipts also benefit from GATT with an $83.1 million increase in soybean receipts by 2002 and an expected increase of $92.6 million in cattle cash receipts by 2002. Of course with higher corn and hog production, Iowa farm production expenses are also expected rise. Total production expenses are expected to be $221.1 million higher by 2002, an increase of 2.0 percent. The bottom line for Iowa net farm income shows an increase of $225.5 million by 2002, averaging $205.2 million higher each year over the 1995 to 2002 period (see Figure 4).

Figure 4. Iowa Net Farm Income



APPENDIX A. IMPACTS OF THE URUGUAY ROUND GATT AGREEMENT ON IOWA CORN, OATS, SOYBEANS, AND FARM INCOME

Table A.1. Impacts of Uruguay Round GATT Agreement on Iowa Corn

	1995	1996	1997	1998	1999	2000	2001	2002	95-99 Avg	00-02 Avg
					(Percent)					
ARP Rate										
Baseline	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
GATT Scenario	7.5	7.5	7.5	7.5	5.0	5.0	5.0	5.0	7.0	5.0
Change	0.0	0.0	0.0	0.0	-2.5	-2.5	-2.5	-2.5	-0.5	-2.5
Participation Rate										
Baseline	87.2	86.7	85.4	85.0	83.7	82.6	81.7	80.0	85.6	81.4
GATT Scenario	87.2	86.6	85.1	84.4	84.1	83.6	82.3	80.7	85.5	82.2
Change	0.0	-0.1	-0.3	-0.5	0.4	1.0	0.6	0.7	-0.1	0.8
					(1000 Acres)					
Planted Area										
Baseline	12787	12839	12719	12651	12714	12730	12652	12743	12742	12708
GATT Scenario	12787	12859	12747	12675	13063	12925	13023	13064	12826	13004
Change	0	20	28	24	350	195	371	320	84	295
Percent Change	0.0	0.2%	0.2%	0.2%	2.7%	1.5%	2.9%	2.5%	0.7%	2.3%
					(Million Bushels)					
Production										
Baseline	1660	1688	1695	1708	1737	1761	1773	1806	1698	1780
GATT Scenario	1660	1691	1698	1711	1782	1786	1821	1848	1708	1818
Change	0	2	4	3	44	25	48	42	11	38
Percent Change	0.0%	0.1%	0.2%	0.2%	2.6%	1.4%	2.7%	2.3%	0.6%	2.2%
					(Dollars Per Bushel)					
Farm Price										
Baseline	2.15	2.20	2.11	2.18	2.20	2.19	2.30	2.34	2.17	2.28
GATT Scenario	2.17	2.27	2.21	2.29	2.19	2.28	2.39	2.45	2.23	2.37
Change	0.03	0.07	0.09	0.12	-0.02	0.09	0.08	0.10	0.06	0.09
Percent Change	1.2%	3.2%	4.4%	5.3%	-0.7%	4.0%	3.6%	4.4%	2.7%	4.0%

Table A.1. Continued.

	1995	1996	1997	1998	1999	2000	2001	2002	95-99 Avg	00-02 Avg
					(Dollars Per Acre)					
Participation Expected Net Returns										
Baseline	193.71	190.25	190.21	186.62	186.02	184.66	183.50	184.58	189.36	184.24
GATT Scenario	193.71	190.86	192.23	189.52	195.15	191.40	191.47	193.30	192.29	192.06
Change	0.00	0.61	2.02	2.90	9.14	6.75	7.97	8.72	2.93	7.81
Percent Change	0.0%	0.3%	1.1%	1.6%	4.9%	3.7%	4.3%	4.7%	1.5%	4.2%
Non Participation Expected Net Returns										
Baseline	146.89	137.67	143.72	129.59	137.15	138.53	134.26	149.06	139.00	140.62
GATT Scenario	146.89	141.48	153.92	143.35	154.34	136.27	147.59	161.95	148.00	148.60
Change	0.00	3.82	10.21	13.76	17.20	-2.26	13.33	12.89	9.00	7.98
Percent Change	0.0%	2.8%	7.1%	10.6%	12.5%	-1.6%	9.9%	8.6%	6.5%	5.7%

Table A.2. Impacts of Uruguay Round GATT Agreement on Iowa Oats

	1995	1996	1997	1998	1999	2000	2001	2002	95-99 Avg	00-02 Avg
						(Percent)				
ARP Rate										
Baseline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GATT Scenario	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Participation Rate										
Baseline	22.8	18.6	16.7	14.3	11.2	9.4	9.5	7.8	16.7	8.9
GATT Scenario	22.8	18.5	16.9	14.6	11.6	12.0	9.6	8.4	16.9	10.0
Change	0.0	-0.0	0.2	0.3	0.4	2.6	0.1	0.6	0.2	1.1
						(1000 Acres)				
Harvested Area										
Baseline	223	188	199	213	232	252	269	286	211.0	269.3
GATT Scenario	223	188	200	215	255	292	323	351	216.1	322.2
Change	0	0	1	2	23	40	54	65	5	53
Percent Change	0.0%	0.0%	0.4%	1.0%	9.9%	16.0%	19.9%	22.6%	2.4%	19.6%
						(Million Bushels)				
Production										
Baseline	15	13	14	15	16	18	19	21	14.7	19.4
GATT Scenario	15	13	14	15	18	21	23	25	15.1	23.2
Change	0	0	0	0	2	3	4	5	0	4
Percent Change	0.0%	0.0%	0.4%	1.0%	9.9%	16.0%	19.9%	22.6%	2.5%	19.7%
						(Dollars Per Bushel)				
Farm Price										
Baseline	1.33	1.34	1.34	1.34	1.34	1.32	1.34	1.34	1.34	1.33
GATT Scenario	1.32	1.36	1.37	1.38	1.34	1.33	1.36	1.38	1.35	1.36
Change	-0.00	0.01	0.03	0.04	0.00	0.01	0.02	0.04	0.02	0.02
Percent Change	-0.1%	1.1%	2.3%	2.7%	0.2%	0.9%	1.8%	2.7%	1.2%	1.8%

Table A.2. Continued.

	1995	1996	1997	1998	1999	2000	2001	2002	95-99 Avg	00-02 Avg
					(Dollars Per Acre)					
Participation Expected Net Returns										
Baseline	73.25	69.00	69.56	67.00	65.46	63.92	63.75	63.38	68.85	63.69
GATT Scenario	73.25	69.28	70.98	69.28	68.39	66.86	65.37	66.18	70.24	66.14
Change	0.00	0.28	1.43	2.28	2.93	2.94	1.62	2.80	1.38	2.45
Percent Change	0.0%	0.4%	2.1%	3.4%	4.5%	4.6%	2.5%	4.4%	2.0%	3.9%
Non Participation Expected Net Returns										
Baseline	34.58	27.82	27.25	25.16	23.53	20.81	17.03	15.80	27.67	17.88
GATT Scenario	34.58	27.74	28.27	27.35	26.17	20.97	17.94	17.64	28.82	18.85
Change	0.00	-0.09	1.01	2.19	2.63	0.16	0.92	1.84	1.15	0.97
Percent Change	0.0%	-0.3%	3.7%	8.7%	11.2%	0.8%	5.4%	11.6%	4.2%	5.4%

Table A.3. Impacts of Uruguay Round GATT Agreement on Iowa Soybeans

	1995	1996	1997	1998	1999	2000	2001	2002	95-99 Avg	00-02 Avg
						(1000 Acres)				
Planted On Complying Farms										
Baseline	6535	6512	6659	6665	6620	6570	6501	6389	6598	6486
GATT Scenario	6535	6503	6634	6623	6654	6652	6548	6446	6590	6548
Change	0	-10	-25	-42	34	82	47	57	-9	62
Percent Change	0.0%	-0.1%	-0.4%	-0.6%	0.5%	1.2%	0.7%	0.9%	-0.1%	1.0%
Planted On Flex										
Baseline	629	630	633	661	642	640	664	638	639	648
GATT Scenario	629	624	621	643	624	669	643	629	628	647
Change	0	-7	-12	-18	-19	29	-21	-9	-11	-1
Percent Change	0.0%	-1.0%	-1.9%	-2.8%	-2.9%	4.5%	-3.2%	-1.4%	-1.8%	-0.1%
Planted On Non-Complying Farms										
Baseline	1495	1524	1476	1516	1565	1624	1710	1802	1515	1712
GATT Scenario	1495	1525	1484	1542	1513	1572	1651	1740	1512	1654
Change	0	1	8	26	-51	-52	-59	-62	-3	-58
Percent Change	0.0%	0.1%	0.5%	1.7%	-3.3%	-3.2%	-3.5%	-3.4%	-0.2%	-3.4%
Total Planted Area										
Baseline	8659	8666	8769	8843	8826	8834	8875	8830	8753	8846
GATT Scenario	8659	8651	8739	8808	8790	8893	8842	8815	8729	8850
Change	0	-15	-29	-35	-36	59	-33	-14	-23	4
Percent Change	0.0%	-0.2%	-0.3%	-0.4%	-0.4%	0.7%	-0.4%	-0.2%	-0.3%	0.0%
						(Million Bushel)				
Production										
Baseline	370	373	381	388	391	395	401	402	381	399
GATT Scenario	370	373	380	387	390	398	399	402	380	400
Change	0	-1	-1	-2	-2	3	-1	-1	-1	0
Percent Change	0.0%	-0.2%	-0.3%	-0.4%	-0.4%	0.7%	-0.4%	-0.2%	-0.3%	0.0%

Table A.3. Continued.

	1995	1996	1997	1998	1999	2000	2001	2002	95-99 Avg	00-02 Avg
					(Dollars Per Bushel)					
Farm Price										
Baseline	5.60	5.78	5.69	5.68	5.69	5.82	5.92	6.08	5.69	5.94
GATT Scenario	5.62	5.90	5.86	5.91	5.93	5.95	6.13	6.34	5.85	6.14
Change	0.02	0.12	0.18	0.23	0.24	0.13	0.21	0.26	0.16	0.20
Percent Change	0.4%	2.0%	3.1%	4.0%	4.3%	2.2%	3.6%	4.3%	2.8%	3.4%
					(Dollars Per Acre)					
Expected Market Net Returns										
Baseline	175.82	165.30	174.28	170.51	170.84	171.63	178.31	183.61	171.35	177.85
GATT Scenario	175.82	166.45	179.65	178.85	181.58	183.33	184.41	194.02	176.47	187.25
Change	0.00	1.15	5.37	8.34	10.74	11.70	6.10	10.42	5.12	9.41
Percent Change	0.0%	0.7%	3.1%	4.9%	6.3%	6.8%	3.4%	5.7%	3.0%	5.3%

Table A.4. Impacts of Uruguay Round GATT Agreement on Iowa Farm Income

	1995	1996	1997	1998	1999	2000	2001	2002	95-99 Avg	00-02 Avg
					(Million Dollars)					
Crop Receipts										
Baseline	4835	4829	4882	4917	5027	5110	5274	5474	4898	5286
GATT Scenario	4855	4909	5027	5109	5192	5283	5503	5749	5018	5512
Change	20	80	145	192	166	172	229	275	121	226
Percent Change	0.4%	1.7%	3.0%	3.9%	3.3%	3.4%	4.4%	5.0%	2.5%	4.3%
Livestock Receipts										
Baseline	5342	5046	5274	5542	5415	5345	5571	5811	5324	5576
GATT Scenario	5428	5160	5427	5732	5650	5634	5834	6024	5480	5831
Change	87	114	152	190	236	289	262	213	156	255
Percent Change	1.6%	2.3%	2.9%	3.4%	4.4%	5.4%	4.7%	3.7%	2.9%	4.6%
Government Payments										
Baseline	933	843	775	775	698	669	606	507	805	594
GATT Scenario	919	796	690	663	656	658	538	427	745	541
Change	-14	-47	-85	-112	-42	-11	-68	-80	-60	-53
Percent Change	-1.5%	-5.6%	-11.0%	-14.5%	-6.0%	-1.6%	-11.2%	-15.8%	-7.5%	-8.9%
Other Income										
Baseline	456	431	443	457	445	435	449	463	446	449
GATT Scenario	462	442	460	478	471	467	480	495	462	481
Change	6	11	17	21	26	31	31	32	16	31
Percent Change	1.3%	2.5%	3.8%	4.7%	5.8%	7.2%	7.0%	6.8%	3.6%	7.0%
Production Expenses										
Baseline	9725	9814	10060	10246	10491	10744	10961	11199	10067	10968
GATT Scenario	9739	9856	10135	10343	10690	10917	11174	11420	10153	11170
Change	14	42	75	98	199	173	213	221	85	202
Percent Change	0.1%	0.4%	0.7%	1.0%	1.9%	1.6%	1.9%	2.0%	0.8%	1.8%
Value of Inventory Change										
Baseline	-28	15	-60	-16	70	6	-17	-44	-4	-18
GATT Scenario	-26	19	-55	-5	137	15	16	-36	14	-2
Change	2	4	4	11	68	8	33	8	18	16

Table A.4. Continued.

	1995	1996	1997	1998	1999	2000	2001	2002	95-99 Avg	00-02 Avg
					(Million Dollars)					
Net Cash Income										
Baseline	2635	2189	2149	2238	1906	1651	1730	1818	2223	1733
GATT Scenario	2714	2298	2294	2422	2129	1994	2031	2102	2372	2042
Change	79	109	146	184	223	343	302	284	148	310
Percent Change	3.0%	5.0%	6.8%	8.2%	11.7%	20.8%	17.4%	15.6%	6.7%	17.9%
Net Farm Income										
Baseline	1813	1350	1254	1429	1163	821	922	1013	1402	919
GATT Scenario	1899	1469	1413	1633	1417	1139	1198	1238	1566	1192
Change	86	120	159	204	255	318	275	226	165	273
Percent Change	4.7%	8.9%	12.6%	14.3%	21.9%	38.7%	29.9%	22.3%	11.7%	29.7%